# Capability Gap Brief

## Unmanned Aircraft Systems Family of Systems (UAS FoS)

LtCol J. Mullin
Fires & Maneuver Integration Division
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# FMID Gap Listing

| FMID IDENTIFIED GAP | Priority |
|---|---|
| Unmanned Aircraft Systems | 1 |
| Assault Support | 2 |
| Target Acquisition | 3 |
| Counterfire / Targeting | 4 |
| Fire Support Coordination | 5 |
| Information Operations | 6 |
| Personal Equipment | 7 |
| Small Arms / Crew-Served | 8 |
| Mobility / Counter-Mobility | 9 |
| Rockets / Artillery | 10 |
| Riverine / Special Operations | 11 |
| Public Affairs | 12 |
| Offensive Air Support | 13 |
| Electronic Warfare | 14 |
| Civil Affairs | 15 |
| Offensive Anti-Air Warfare | 16 |

# Unmanned Aircraft Systems (UAS)
## Tiers I, II, and III

**JCA:**
**Battlespace Awareness**
**Force Application**
**NetCentric C2**
**MCT: 3.1.6. Assess/Conduct Combat Assessment**
**3.1 Conduct Targeting**
**3.2.1 Conduct Fire Support Tasks**
**1.6.6.3 Conduct Counter-Terrorist Ops**
**1.6.6.2 Conduct Anti-Terrorism**
**Enabling/Supporting Ops**
**1.3 Conduct Maneuver and Close Forces**
**Conduct Aerial Reconnaissance and Surveillance**
**Collect BDA**
**Relay Communications**

**Deficiencies in Conditions**: Unable to provide adequate and timely battle space awareness without appropriate C2 support structure.
**Deficiencies in Standards**: Unable to provide 24/7 coverage across the MEF.
**Possible DOTMLPF implications:** Tier II will require additional personnel, training, and facilities; VMU structure will change with the addition of Tier II and the VUAS in 2015

Inputs utilized for analysis:
- MAGTF FAA dtd Jun 2006
- Tier I, SURSS and RPUAV ORDs
- Tier II and III FAA, FNA, FSA, PIA, ICD
- Various I & II MEF UNS/UUNS
- Various JUONS

Current PORS
Raven B transition (Tier I)
Pioneer to Shadow Transition ( Interim Tier III)
Tier II MS B in Jan 08/ IOC 2010
Tier III new start for IOC of 2015*

*Funds needed in POM 10 for Tier III VUAS new start program

# Impact on the MAGTF

- **I MEF contracted for ISR Services starting in 2004**
  - **Current USMC capacity does not provide sufficient organic ISR at the tactical level**
    - **Both VMUs T/E in theater to meet demand, personnel rotate**
  - **9 Urgent UNS/JUONS for tactical ISR capability submitted since OIF began**
  - **$48.3M spent on ISR Services**
  - **$646M Projected for continuation of ISR services and GBOSS UUNS**
- **UAS ISR capability is required by DO forces**

# Key Attributes Needed to Resolve the Gap

- **Tier I**
  - **Man-packable**
  - **Organic to Battalion**
  - **Day/night capability**
- **Tier II**
  - **Persistent**
  - **Expeditionary**
  - **Day/night targeting capability (LP/LD)**
- **Tier III**
  - **From the Sea**
  - **Speed**
  - **Multi-payload capable**

**UAS Family of System**
**Joint Interoperability**

# New or Current Capability Issues

- **Gap identified due to insufficient organic ISR capabilities**
  - **Capacity and increased capabilities**
- **Capability not unique to the USMC**
- **Army One Ground Control Station (common USMC UAS FoS)**
  - **Tier I – USMC has adopted USA Raven B system**
  - **Tier II – USMC leading joint program development with USAF, USN, and SOCOM**
  - **Tier III (interim) – USMC adopting Army Shadow 200 system to replace Pioneer**
    - **Tier III POR is Marine unique requirement due to vertical capability and speed**

# Integration Concerns

- **UAS Tiers linked to C2ID (CAC2S/MAGTF C2)**
  - **UAS Tiers II and III linked to Common TCDL**
- **Fires Integration**
  - **Targeting**
  - **Future weapons employment**
- **UAS Tiers linked to IID**
  - **Airborne ISR**

# Possible DOTLPFM Impacts

- **Doctrine**
  - **The current doctrine requires updating**
  - **Changes will be made with the introduction of the three-tier FoS**

- **Organization**
  - **Shadow is being incorporated within the existing VMU.**
    - **Additional personnel will be required in FY10 with the introduction of the Tier II system - approximately 100 Marines per VMU.**
  - **A third VMU will be stood up as USMC grows to 202,000**
  - **A fourth VMU planned for MFR**

# DOTLPFM Impacts

- **Training**
  - **Training will not mitigate the gap**
  - **Increased training requirements with introduction of Shadow, Tier II and Tier III VUAS**
  - **Proposed joint training will be conducted with Army and Navy at Army UAS School, Fort Huachuca**

# DOTLPFM Impacts

- **Leadership and Education**
  - **Leadership and education can not mitigate gap**
- **Personnel**
  - **Will require increase in personnel and MOS mix with the introduction of Tiers II and III**
- **Facilities**
  - **New facilities will not close the gap; however, they will be required with the addition of both systems**
  - **New facilities required in theater to accommodate Shadow**

# DOTLPFM Impacts

- **Materiel**
  - **Materiel solutions exist to mitigate the gap**
    - **Tier II - continue POR development**
    - **Tier III – new start POM 10**
  - **No current systems available to meet Tier II or Tier III requirements**
    - **The Marine Corps is leading joint Tier II development**
    - **The Marine Corps will develop an independent Tier III solution**

# Recommendation

- **Recommendation:**
  - **Continue Tier I funding for development, acquisition and fielding**
  - **Continue Tier II funding for POR development/acquisition**
  - **Fund New Start POM 10 Tier III POR development, acquisition and fielding**

# Backup

# Gaps

| | |
|---|---|
| **Equipment** | Programs of Record -TBD<br>Tier I – Raven B<br>Tier II – POR in Development<br>Tier III – Interim - Shadow |
| **Data Dissemination** | CAC2S, Comm/Data Relay |
| **Organic Tactical ISR capability** | Tier I – Insufficient numbers for 3 MEFs, MARSOC and MFR<br>Tier II – no POR (Svc Contract)<br>Tier III – Insufficient numbers for 3 MEFs and MFR and insufficient capability |
| **Forces supported** | MAGTF (ALL), MEF<br>Division, Wing, MLG |